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Washington, D.C. 20005

Monthly Statistical Report

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JANUARY 1988

SUMMARY

January's unusually large, 6.9 percent increase in total deliveries, amounting to a 1.1 million B/D rise over last January, resulted from larger-than-normal increases for all major fuels. The increase was the result of several factors including weather, fuel switching, likely replenishment of distributor and end-user inventories, and below-trend deliveries last January.

Gasoline's 286 thousand B/D, 4.4 percent increase was partly the result of below-trend deliveries a year ago; adjusted for this, deliveries would have risen only about 1.3 percent. Distillate deliveries' jump of over 13 percent, however, was mostly the result of factors this year—including extremely cold weather, continued strength in transportation usage, and apparent replenishment of nonprimary inventories after weak deliveries in December. Natural gas curtailments and spot price increases helped to push electric utilities and industrial users with dual fuel capability towards petroleum fuels, including both residual fuel oil and distillates—helping to give residual fuel oil its first year-to-year increase in twelve months. Kerosine jet fuel deliveries jumped over 21 percent, reversing a pattern of weak increases in recent months; also contributing to the increase was demand for blending with distillates as a result of cold weather. Deliveries of "other oils", continuing the strong growth of recent months, contributed over 160 thousand B/D to January's increase as well.

The familiar story of domestic production's decline continued in January, with U.S. crude oil output down 1 million B/D from two years ago, despite increases in Alaska. Though, regionally, the biggest percentage decline in production has been in the Midwest and Eastern states where most wells are small producers, the largest regional volume decline has been in the Gulf Coast area. Texas alone has accounted for a third of the lower 48's decline of the past two years.

Imports continued at levels similar to recent previous months in January, but a shift away from crude towards products has been evident in the past few months. January's refinery yields displayed a marked emphasis on distillates and heavier products, in response to strong deliveries for these fuels.

Total stocks fell 24 million barrels during the month, in line with typical seasonal behavior. Distillate stocks at month-end were only 2 million barrels less than at the end of September, so that, on a net basis, only about half a percent of this heating season's nearly 400 million barrels of distillate deliveries so far has been supplied from primary inventories.

PRODUCT SUPPLIED [1/]

Gasoline

RISE PARTLY DUE TO LOW DELIVERIES LAST JANUARY. Following a weak 0.8 percent increase in December, January's deliveries of motor gasoline rose 4.4 percent or 286 thousand B/D. Part of the larger-than-usual increase is attributable to below-trend deliveries a year ago, when heavy snows slowed consumption and deliveries on the East Coast. If last January's deliveries had been in line with deliveries trends of that period, this January's increase would have been roughly 1.3 percent—more than half a point less than last year's annual increase. With data on miles traveled continuing to show year-to-year increases on the order of 4 percent for the most recent months available, and allowing for fuel efficiency improvements, the adjusted January increase appears to be slightly less than estimated underlying consumption growth.

Unleaded's share of deliveries exceeded 80 percent for the first time in January, continuing the accelerated penetration of unleaded over the past year. For 1984 to 1986, unleaded's share had risen only 4 to 5 percentage points per year. More recently, year-to-year gains have been closer to January's 7.1 percentage point gain, reflecting the growing role of midgrade unleaded.

API ESTIMATES

	JANUARY	
	Million B/D	Percent Change
Total domestic deliveries	17.5	6.9
Crude oil production[2/]	8.1	(3.7)
Total imports[3/]	7.0	14.4
Stocks (million bbl)[3/]	1,065	(0.6)

Distillates

DELIVERIES JUMP OVER 13 PERCENT. The explanation of January's unusually large year-to-year increase in distillate deliveries —amounting to more than 400 thousand B/D or over 13 percent—is complex, involving below-trend deliveries last year, weather, transportation traffic growth, blending of kerosine jet fuel, fuel switching, and nonprimary stock movements.

To begin to unravel these many influences, it should first be noted that last January's deliveries were about 100 thousand B/D below trend, after accounting for weather, probably due to nonprimary stock movements. This January's 9 percent colder weather added at least another 120 thousand B/D to the year-to-year comparison, though with extremely cold weather concentrated in the earlier part of the month, the effect may have been larger. Continued strengthening in transportation usage is estimated to have added perhaps another 100 thousand B/D to this January's deliveries.

It would seem that this would leave roughly 100 thousand B/D of the year-to-year increase to be explained by other factors. These factors include fuel switching related to higher spot prices and industrial curtailments for natural gas, as well as replenishment of distributor and end-user inventories following lower-than-typical deliveries in December and in anticipation of a possible barge worker strike in New York Harbor. But, in fact, distillate deliveries' January increase would be even larger if recognition were made of kerosine jet fuel transfers to distillate markets through downstream blending. At least part of kerosine jet fuel's January deliveries, above trend by perhaps 150 thousand B/D, should also be included as part of January's distillate fuel oil supplies.

In any event, much of January's deliveries increase resulted from weather and other short-term factors. After accounting for these, it appears that the underlying growth rate for distillate consumption was around 3 to 4 percent for January.

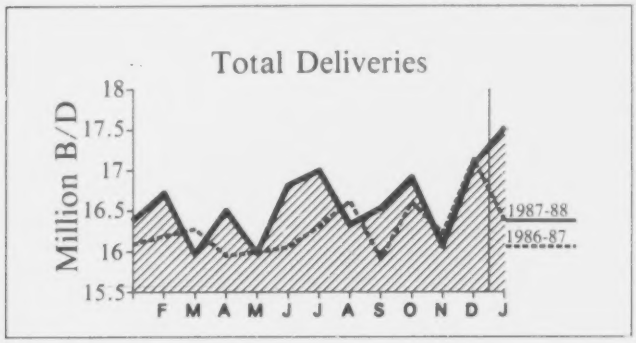
Residual Fuel Oil

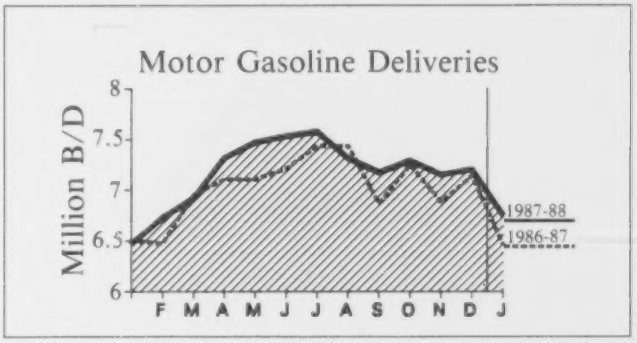
FIRST YEAR-TO-YEAR INCREASE IN TWELVE MONTHS. January deliveries of residual fuel oil were estimated to be 1,532 thousand B/D, an increase of 11.3 percent from December and 4.8 percent from last January. The more than 150 thousand B/D increase from December contrasts sharply with the January declines in the previous two years. The weather and disruptions of gas supplies were primarily responsible for the unusual increase in January, the first year-to-year increase in twelve months.

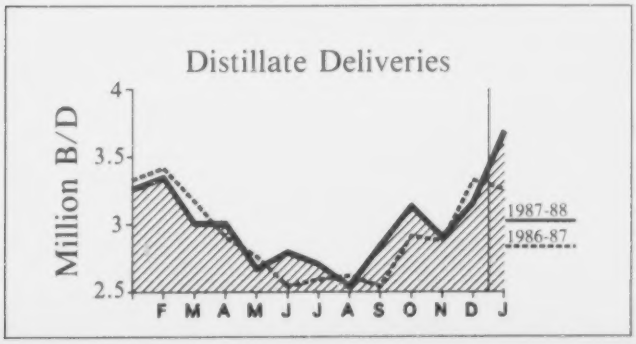
As a result of January's colder weather, deliveries to the major sectors—residential, commercial, industrial, and electric utilities—rose substantially. Several Northeast power plants which burn heavy oil as a marginal fuel increased their purchases of residual fuel oil by as much as 25 percent. In addition, the recent rise of spot gas prices to over $2.00/MCF encouraged some industrial plants to switch to residual fuel oil. In Southern California, the combined effects of cold weather and curtailments in anticipation of possible additional disruption of gas supplies in the wake of FERC's Order 500 caused industrial and commercial enterprises with dual-fired capability to switch to heavy fuel oil for much of the month, raising deliveries by as much as 50 thousand B/D. The gradual resumption of gas supplies in that region as well as a moderation of the cold weather in the country appeared to result in a modest decline in heavy fuel oil demand towards the end of the month.

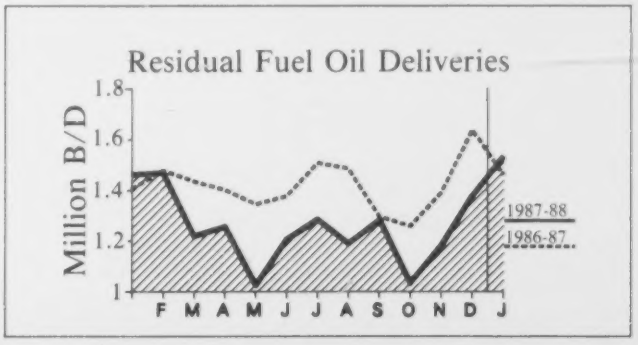
Kerosine Jet Fuel

WEAK DELIVERIES PATTERN REVERSED. Late last year, kerosine jet fuel deliveries had been running below what air traffic growth indicated, rising only 3 percent in the second half of 1987 versus an estimated increase in miles flown of about 6 percent. But January's 21 percent, 244 thousand B/D increase, as









noted above, represents more than a reversal of recent deliveries patterns for air transport. Reportedly, kerosine jet fuel has been pressed into service to increment distillate fuel oil supplies and bring some imported product up to cloud-point specifications.

However, some of January's surge in deliveries, roughly 150 thousand B/D higher than would be expected based on growth in consumption for air transport, likely also represents replenishment of end-user jet fuel inventories after months of below-trend deliveries. Assuming that air traffic growth continued at a rate similar to that of the second part of last year, recovering from relatively flat performance in December, actual consumption for kerosine jet fuel for air transport probably grew 5 to 6 percent in January.

Other Oils

WEATHER, CHEMICAL DEMAND BRING 4 PERCENT RISE.

"Other oils" deliveries for January are estimated to be 4,279 thousand B/D, an increase of 1.4 percent from December and 4.0 percent from January 1987. The severe winter weather experienced throughout the entire country during the first half of the month resulted in a substantial rise in deliveries of space-heating fuels. Propane demand for space-heating was estimated to have been 40 to 45 thousand B/D higher than during the previous year; kerosine consumption was estimated to have been 20 to 25 thousand B/D higher. The unusually cold weather, however, is believed to have virtually halted deliveries of asphalt and road oil, even in traditionally strong Sunbelt markets.

Petrochemical feedstock deliveries continued to run at levels substantially higher than last year, confirming a strong upward trend and accounting for more than half of the year-over-year increase in "other oils" deliveries. Although propylene continued to dominate olefin feedstock markets, high ethylene demand also appears to have stabilized the slide in ethane prices and deliveries, both of which increased slightly in January. At the heavier end of the olefin feedstock market, naphtha, having languished throughout much of last year, also started to become more competitive with propylene, primarily as a result of continuing increases in propylene and butadiene demand.

Refinery gas production and consumption are estimated to have fallen by 2 percent from last month, but this decline is substantially less than the seasonal norm. On a year-to-year basis, still gas deliveries are estimated to have risen by more than 2 percent from last year's levels, contributing to the increase in "other oils" deliveries.

SUPPLY [1/]

Production

CRUDE OIL OUTPUT FALLS 1 MILLION B/D IN PAST TWO YEARS.

January's domestic crude oil production continued its now-familiar decline, falling 3.7 percent versus a year ago. Compared with two years ago, when crude oil prices were just beginning to fall and little observable effect on crude oil output had yet appeared, this January's production represents an 11 percent, 1 million B/D decline—even though it includes Alaska's roughly 120 thousand B/D increase over the period.

Regionally, the areas of the lower 48 with the largest proportional declines have been in the East and Midwest, where most wells are relatively small producers and stripper wells account for most production. Together, these regions, which are responsible for one seventh of domestic production outside Alaska, have experienced a decline in crude oil production of nearly one fourth or over 250 thousand B/D in the past two years. In terms of volume, however, the Gulf Coast region's 15 percent decline has accounted for over 600 B/D of the lower 48's 1.1 million B/D fall-off over the two-year period. Texas alone accounted for about a third of the lower 48's decline. West Coast production has dropped the least of any region in the lower 48, falling only about 8 percent or less than 100 thousand B/D in two years.

Imports

A SHIFT FROM CRUDE IN RECENT MONTHS.

Total imports in January, at 7.0 million B/D, continued near the levels of the past six months—but within that total, crude oil imports have been giving way to product imports as domestic inventories of crude have been drawn down to levels more typical of recent years. January's imports of crude oil, at 4.6 million B/D, are down roughly 800 thousand B/D from the recent-year record of 5.4 million B/D set last August. Product imports, however, jumped to almost 2.4 million B/D for January, the highest level in almost four years.

Of the over 570 thousand B/D increase in product imports over last January, distillate fuel oil was the only major product to contribute significantly to the gain with a rise of 131 thousand B/D, year to year, to 328 thousand B/D—a recent-year high for the month. Imports of residual fuel oil and of gasoline and components were about even. Though increases for other products, such as LPGs, also were partly responsible for January's high level of product imports, it appears that bolstering of feedstock supplies for further processing with imported material also accounted for a major portion of January's increase.

Refinery Operations

YIELDS EMPHASIZE DISTILLATE AND RESIDUAL FUEL OIL.

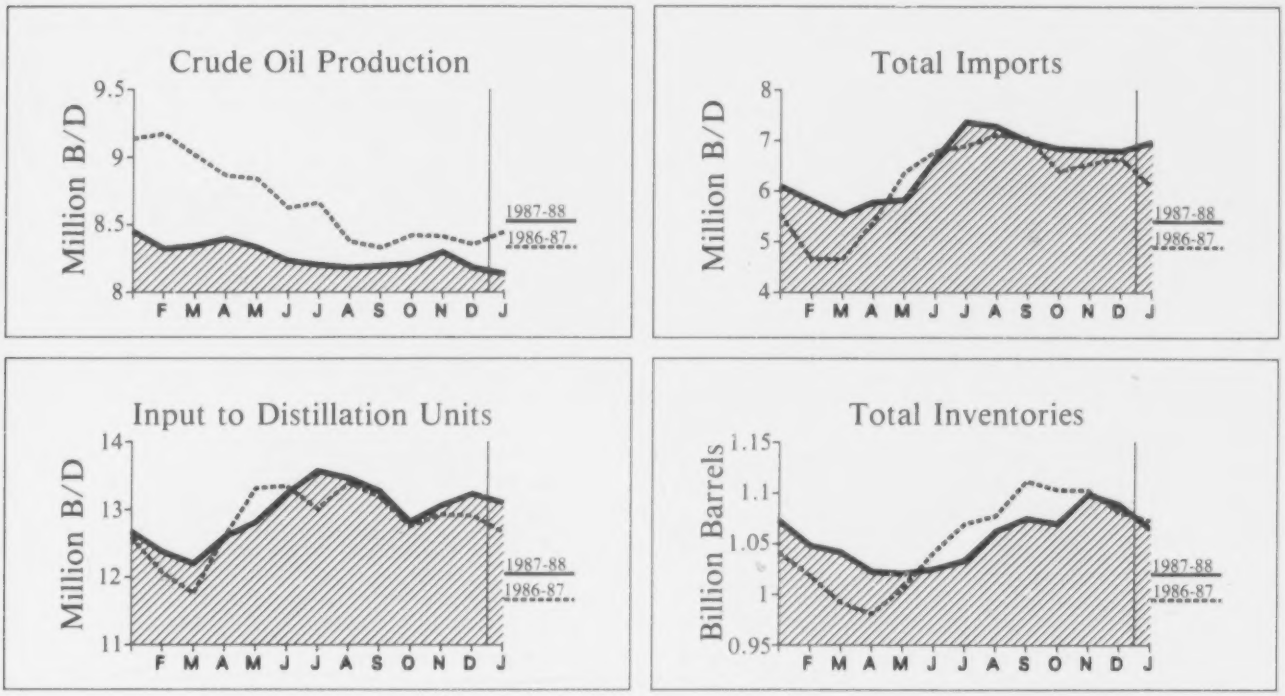
Refinery yields emphasized distillates and residual fuel oil in January, in response to strong deliveries of those products. Thus, though distillate production was down from December's recent-year record of nearly 3.3 million B/D, it was up by over 9 percent from a year ago and still exceeded 3.0 million B/D. Residual fuel oil production, too, rose nearly 10 percent, surpassing 1 million B/D for the first time in two years. Gasoline output rose less than a percent over last January's level.

January's utilization rate of 83.5 percent continued in the range of the past several months. Since last June, utilization has been at 83 percent or higher for all months except October, when seasonal refinery turnarounds reduced runs. This contrasts with the pattern as recently as three years ago, when for a similar period, utilization averaged only about 77 percent.

Inventories

DISTILLATE STOCKS ONLY A SMALL PART OF SEASON'S SUPPLY. Total inventories fell 24 million barrels in January, in line with typical January stock movements; declines for distillate and crude oil were major contributors to the drop. Despite the cold weather and unusually high deliveries, distillates' 12 million barrel decline was within the range of recent Januaries and provided only about a tenth of the month's supplies. In fact, January's closing distillate inventories, at 125 million barrels, were nearly even with last September's 127 million barrels, so that on a net basis, inventories have actually provided very little of the nearly 400 million barrels of distillates supplied so far this heating season. Gasoline stocks' 10 million barrel increase was also within the range of recent experience for January.

Crude oil stocks declined for the second month in a row, falling another 12 million barrels after a buildup late last year. This has brought crude oil stocks back down to 339 million barrels, closer to levels typical of the past several years.



1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 543 million barrels as of January 31, 1988).

ESTIMATED UNITED STATES PETROLEUM BALANCE

(Daily Average in Thousands of 42 Gallon Barrels)

Products Supplied/Supply From Primary Storage	JANUARY			YEAR-TO-DATE		
	1988[1]	1987[2]	% Change	1988[3R]	1987[2]	% Change
Products Supplied:						
Total motor gasoline	6,755	6,469	4.4			
Finished leaded motor gasoline*	1,287	1,695	(24.1)			
Finished unleaded motor gasoline*	5,468	4,774	14.5			
Naphtha-jet	182	166	9.6			
Kerosine-jet	1,396	1,152	21.2			
Distillate fuel oil	3,685	3,259	13.1			
Residual fuel oil	1,532	1,462	4.8			
All other oils[4]	4,279	4,115	4.0			
Reclassified[5]	- 309	- 240	28.8			
Total domestic products supplied	17,520	16,383	6.9			
Exports	689	829	(16.9)			
Total products supplied	18,209	17,212	5.8			
Supply:						
Domestic production:						
Crude oil[6]	8,134	8,447	(3.7)			
Natural gas liquids	1,661	1,592	4.3			
Other supply[7]	685	783	(12.5)			
Total domestic supply	10,480	10,822	(3.2)			
Imports:	10/	10/				
Crude oil, total	4,598	4,293	7.1			
Canadian	602	567	6.2			
Other	3,996	3,726	7.2			
Products, total	2,373	1,801	31.8			
Residual fuel oil	653	667	(2.1)			
Other	1,720	1,134	51.7			
Total imports	6,971	6,094	14.4			
Total supply	17,451	16,916	3.2			
Stock change, all oils	- 758	- 296	XXXX			
Refinery Operations						
Input to crude oil distillation units	13,106	12,672	3.4			
Operable capacity	15,697	15,638	0.4			
Refinery utilization (%)[8]	83.5%	81.0%	3.1			
Crude oil runs	12,965	12,570	3.1			

Stocks (millions bbls.)	1988	1987	1987[2]	% Change from....	
	Jan. 31[9]	Dec. 31[9]	Jan. 31	Previous Month	Year Ago
Crude oil 10/	338.6	350.5r/	333.7	(3.4)	1.5
Unfinished oils	95.4	92.0r/	94.7	3.7	0.7
Total motor gasoline**	237.7	227.4r/	249.9	4.5	(4.9)
Finished leaded motor gasoline*	55.1	54.4	70.9	1.3	(22.3)
Finished unleaded motor gasoline*	143.5	135.1r/	138.4	6.2	3.7
Naphtha-jet	7.4	7.2	7.4	2.8	-
Kerosine-jet	38.4	43.7r/	42.7	(12.1)	(10.1)
Distillate fuel oil	124.6	136.5r/	141.4	(8.7)	(11.9)
Residual fuel oil	45.0	46.3r/	45.0	(2.8)	-
All other oils	178.1	185.1r/	157.0	(3.8)	13.4
Total all oils	1,065.2	1,088.7r/	1,071.8	(2.2)	(0.6)

1/ Based on API estimated data converted to a monthly basis.
2/ Source: U.S. Department of Energy.
3/ Source:
4/ Includes crude losses.
5/ Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
6/ Includes lease condensate.
7/ Includes Unaccounted-for crude oil, Refinery input of other hydrocarbons, and Processing gain.
8/ Represents "Input to crude oil distillation units" as a percent of "Operable capacity."
9/ Derived by interpolating API weekly stocks data.
10/ Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
R/ Revised.
* Included in motor gasoline.
** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.